Please replace the ABSTRACT paragraph (57) with the following amended paragraph:

ABSTRACT

A blood gas syringe includes a porous plastic plug having a crosslinked hydrogel affixed to a wall of a passageway of the plug. When a blood sample is taken with the syringe, the incoming sample forces air in the system out through the passageway of the plug until the sample contacts the hydrogel, causing the passageway to seal shut. A process for fabricating a water-swellable porous plastic plug is provided, the process including the steps of: providing a porous substrate having a plurality of passageways therethrough, disposing into the passageways a hydrophilic polymer, irradiating the substrate to induce cross-linking of the hydrophilic polymer, such that the polymer forms a hydrogel coating on the walls of the passageways.